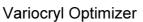
SAFETY DATA SHEET





1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Identification of the substance or preparation

Product name	: Variocryl Optimizer
Product code	: VO
Use of the substance/prepa	ration
Product use	: Paint related intermediate/concentrate for industrial use.
Company/undertaking ident	<u>ification</u>
Manufacturer	: Akzo Nobel Deco GmbH, Geschäftsbereich Zweihorn Düsseldorferstraße 96-100 D-40721 Hilden Deutschland Tel: (+49) 0221-5881-0 Fax: (+49) 0221-5881-355 internet: www.zweihorn.com
e-mail address of person responsible for this SDS	: sdbinfo@akzonobeldeco.de

2. HAZARDS IDENTIFICATION

The product is classified as dangerous according to Directive 1999/45/EC and its amendments.

Classification	:	R10 Xi; R36 R67
Physical/chemical hazards	:	Flammable.
Human health hazards	:	Irritating to eyes. Vapours may cause drowsiness and dizziness.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances presenting a health or environmental hazard within the meaning of the Dangerous Substances Directive 67/548/EEC or assigned an occupational exposure limit.

Chemical name	CAS number	%	Number	Classification	
propan-2-ol	67-63-0	25 - 50	200-661-7	F; R11 Xi; R36 R67	[1] [2]
Poly(oxy-1,2-ethanediyl), .alphahydroomega hydroxy-, ether with .alphafluoroomega(2- hydroxyethyl)poly(difluoromethylene) (1:1)	65545-80-4	0.1 - 1		N; R51/53	[1]
See section 16 for the full text of the R-phrases declared above					

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

[3] PBT-substance

[4] vPvB-substance

Occupational exposure limits, if available, are listed in section 8.



4. FIRST AID MEASURES

First-aid measures	
General	 In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and seek medical advice.
Inhalation	 Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.
Skin contact	 Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognised skin cleanser. Do not use solvents or thinners.
Eye contact	: Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open.
Ingestion	 If swallowed, seek medical advice immediately and show the container or label. Keep person warm and at rest. Do not induce vomiting.

5. FIRE-FIGHTING MEASURES

Extinguishing media	: Recommended: alcohol-resistant foam, CO ₂ , powders.
Extinguishing media not to be used	: Do not use water jet.
Special exposure hazards	: Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard. Appropriate breathing apparatus may be required. Cool closed containers exposed to fire with water. Do not release runoff from fire to drains or watercourses.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions	: Exclude sources of ignition and ventilate the area. Avoid breathing vapour or mist. Refer to protective measures listed in sections 7 and 8. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13).	
Environmental precautions	 Do not allow to enter drains or watercourses. If the product contaminates lakes, rivers, or sewers, inform the appropriate authorities in accordance with local regulations. 	
Methods for cleaning up	: Preferably clean with a detergent. Avoid using solvents.	
Note: see section 8 for personal protective equipment and section 13 for waste disposal.		

7. HANDLING AND STORAGE

Handling

Vapours are heavier than air and may spread along floors. Vapours may form explosive mixtures with air. Prevent the creation of flammable or explosive concentrations of vapours in air and avoid vapour concentrations higher than the occupational exposure limits.
 In addition, the product should only be used in areas from which all naked lights and other sources of ignition have been excluded. Electrical equipment should be protected to the appropriate standard.

To dissipate static electricity during transfer, earth drum and connect to receiving container with bonding strap. Operators should wear antistatic footwear and clothing and floors should be of the conducting type.

Keep away from heat, sparks and flame. No sparking tools should be used.

Keep container tightly closed.

Avoid contact with skin and eyes. Avoid the inhalation of dust, particulates, spray or mist arising from the application of this preparation. Avoid inhalation of dust from sanding.

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking.



7. HANDLING AND STORAGE

Put on appropriate personal protective equipment (see section 8).

Never use pressure to empty. Container is not a pressure vessel. Always keep in containers made from the same material as the original one.

Comply with the health and safety at work laws.

When operators, whether spraying or not, have to work inside the spray booth, ventilation is unlikely to be sufficient to control particulates and solvent vapour in all cases. In such circumstances they should wear a compressed air-fed respirator during the spraying process and until such time as the particulates and solvent vapour concentration has fallen below the exposure limits.

Storage

: Store in accordance with local regulations. Observe label precautions. Store in a dry, cool and well-ventilated area. Keep away from heat and direct sunlight. Keep away from sources of ignition. Keep away from: oxidising agents, strong alkalis, strong acids. No smoking. Prevent unauthorised access. Containers that have been opened must

be carefully resealed and kept upright to prevent leakage. Do not empty into drains.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredient name	Occupational exposure limits
propan-2-ol	EH40/2005 WELs (United Kingdom (UK), 8/2007). STEL: 1250 mg/m ³ 15 minute(s). STEL: 500 ppm 15 minute(s). TWA: 999 mg/m ³ 8 hour(s). TWA: 400 ppm 8 hour(s).
Exposure controls	: Provide adequate ventilation. Where reasonably practicable, this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and solvent vapours below the OEL, suitable respiratory protection must be worn.
Occupational exposure con	ntrols
Respiratory system	: If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators.
Skin and body	 Personnel should wear antistatic clothing made of natural fibres or of high- temperature-resistant synthetic fibres.
Hands	
Gloves	: For prolonged or repeated handling, use the following type of gloves:
	Recommended: nitrile rubber, butyl rubber, foil, fluor rubber May be used: neoprene Not recommended: PVC
	Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred.
	The user must check that the final choice of type of glove selected for handling this product is the most appropriate and takes into account the particular conditions of use, as included in the user's risk assessment.
Eyes	: Use safety eyewear designed to protect against splash of liquids.
Environmental exposure controls	: Do not allow to enter drains or watercourses.



vo

Variocryl Optimizer

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	: Liquid.
Flash point	: Closed cup : 24 °C
Density	: 0.93 g/cm ³
Vapour density	: < 1 (Air = 1) (Calculated value for the mixture)
Explosion limits	: Greatest known range: Lower: 2% Upper: 13% (propan-2-ol)

10. STABILITY AND REACTIVITY

Conditions to avoid	:	Stable under recommended storage and handling conditions (see section 7). When exposed to high temperatures may produce hazardous decomposition products.
Materials to avoid	:	Keep away from the following materials to prevent strong exothermic reactions: oxidising agents, strong alkalis, strong acids.
Hazardous decomposition products	:	Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.
	_	

11. TOXICOLOGICAL INFORMATION

There is no data available on the preparation itself. The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and classified for toxicological hazards accordingly. See sections 3 and 15 for details.

Exposure to component solvent vapour concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness.

Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin.

If splashed in the eyes, the liquid may cause irritation and reversible damage.

12. ECOLOGICAL INFORMATION

There is no data available on the preparation itself. Do not allow to enter drains or watercourses.

The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and is not classified as dangerous for the environment but contains a substance or substances dangerous for the environment. See section 2 for details.

Aquatic ecotoxicity

Product/ingredient name Poly(oxy-1,2-ethanediyl), .al .omegahydroxy-, ether with fluoroomega(2- hydroxyethyl)poly(difluorome	alpha	Result Acute EC50 8,3 mg/l	Species Daphnia	Exposure 48 hours
		Acute LC50 19 mg/l	Fish - Pimephales promelas	96 hours
Conclusion/Summary	: Not available.			
Persistence/degradability				
Conclusion/Summary	: Not available.			
PBT	: Not applicable.			
vPvB	: Not applicable.			



13. DISPOSAL CONSIDERATIONS

Do not allow to enter drains or watercourses.

Dispose of according to all federal, state and local applicable regulations.

Hazardous waste

: The classification of the product meets the criteria for hazardous waste. (EWC 08 01 11)

Packaging

11)
 15 01 10* packaging containing residues of or contaminated by dangerous substances

14. TRANSPORT INFORMATION

Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Land - road/railway	
UN number	: UN1263
Transport document name	: PAINT RELATED MATERIAL
Special provision 640	: E
ADR/RID Class	: 3
Packing group	: 111
ADR/RID Label	
<u>Sea</u>	
UN number	: UN1263
Proper shipping name	: PAINT RELATED MATERIAL
IMDG Class	: 3
Packing group	: 111
IMDG Label	
Marine pollutant	: No.
Air	
UN number	: UN1263
Proper shipping name	: PAINT RELATED MATERIAL
ICAO/IATA Classification	: 3
Packing group	: 111
ICAO/IATA label	:

15. REGULATORY INFORMATION

EU regulations	The product is classified and labelled for supply in accordance with the Directive 1999/45/EC as follows:
Hazard symbol or symbols	: Irritant
Risk phrases	: R10- Flammable. R36- Irritating to eyes. R67- Vapours may cause drowsiness and dizziness.



VO	Variocryl Optimizer
15. REGULATORY	'INFORMATION
Safety phrases	: S23- Do not breathe vapour or spray. S51- Use only in well-ventilated areas.
The information in this Safe	ety Data Sheet is required pursuant to Annex II to Regulation (EC) No 1907/2006.
Industrial use	: The information contained in this safety data sheet does not constitute the user's own assessment of workplace risks, as required by other health and safety legislation. The provisions of the national health and safety at work regulations apply to the use of this product at work.
16. OTHER INFOR	MATION
Full text of R-phrases referred to in sections 2 a 3 - United Kingdom (UK	

Date of issue/ Date of revision

Notice to reader

The information in this SDS is based on the present state of our knowledge and on current laws. The product is not to be used for purposes other than those specified under section 1 without first obtaining written handling instructions. It is always the responsibility of the user to take all necessary steps to fulfil the demands set out in the local rules and legislation. The information in this SDS is meant to be a description of the safety requirements for our product. It is not to be considered a guarantee of the product's properties.

: 2010-02-25.

